



ECBC

Edgewood Chemical Biological Center

SINCE 1917



Edgewood Chemical Biological Center

(ECBC): A “Hands On” Organization

Who We Are

ECBC is a world leader in applying state-of-the-art science, technology, and engineering to CB defense problems. Traditionally strong in chemical warfare defense, ECBC also has impressive capabilities in biology, biotechnology, and bio-safety.

Our Heritage

Since the first broad use of chemical weapons in World War I, scientists at what is now known as ECBC actively researched the potential uses of chemical agents as weapons and technologies to protect U.S. soldiers from such weapons.

Application of technologies developed at ECBC (from masks to CB agent detectors, to sampling kits, to smoke screen technologies) has protected U.S. soldiers for the last 85 years during every major war or conflict, in which the United States was involved. Our experts are routinely dispersed throughout the world to assist in CB-defense related matters.

Where We Are

We are located at the Edgewood Area of Aberdeen Proving Ground, which is in Harford County, Maryland. ECBC is situated on a 20-mile peninsula stretching between the Bush and Gunpowder Rivers into the Chesapeake Bay, approximately 90 miles north of Washington, DC, near the Delaware and Pennsylvania state lines.



Since 1917, the Edgewood Area of Aberdeen Proving Ground, MD, has steadily built an exemplary program in chemical and biological (CB) defense research. While many agencies and organizations today are engaged in matters related to CB defense, we are the “hands on” research, development, and applications leader.

How We Are Organized

A snapshot of ECBC today shows our employees organized into four directorates. ECBC has personnel matrixed to other Army organizations to support their missions. ECBC also has several state-of-the-art facilities that support each directorate and their personnel.

Research and Technology

The Research and Technology (R&T) Directorate is the source of chemistry, biology, toxicology, and aerosol physics expertise for CB solutions. R&T couples basic science with engineering to identify technologies for future development. Technologies include CB agent detectors and warning systems, decontamination technologies, and protective masks. In R&T, employees perform a wide range of studies including the effects of CB agents on soldiers and the environment. In addition, R&T personnel operate a number of unique laboratories capable of working with chemical and biological agents, including a Biosafety Level 3 laboratory and the Department of Defense's only pilot scale biomanufacturing facility.



Engineering

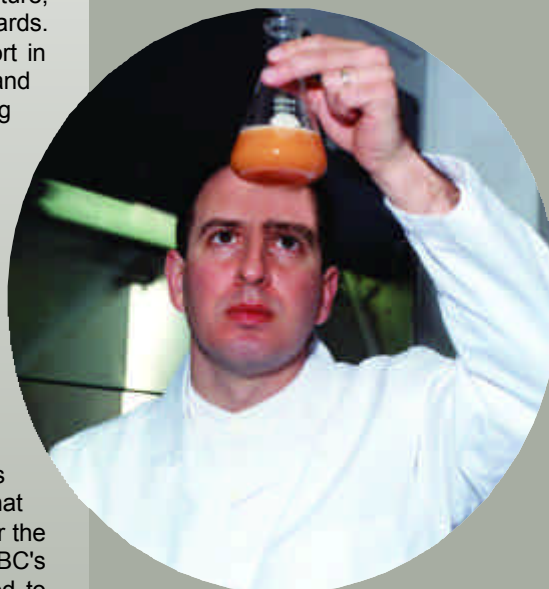
While R&T scientists specialize in developing CB technologies, the Engineering Directorate helps to mature these technologies into actual products. Engineering Directorate personnel take transitioned technologies and develop and test them resulting in the production of end items that are ultimately fielded. State-of-the-art engineering capabilities such as computer-aided engineering and design and toxic/environmental test chambers are used to facilitate development and production activities. The Engineering Directorate also leads ECBC's efforts in Homeland Defense by training first responders across the country, enhancing nuclear, biological and chemical preparedness nationwide.

CB Services

One of the strongest “hands on” elements at ECBC is the CB Services Directorate, which provides a full range of chemical surety and biological materiel management services. The directorate applies its CB agent handling experience and chemical weapons expertise to address munitions and demilitarization problems, assess and reduce risk posture, support CB agent operations, and develop risk management standards. CB Services is ECBC’s focal point for United Nations’ (UN) support in chemical and biological related matters. It provides chemical and biological specific training, advice, and planning to the UN Monitoring and Verification Inspection Center. CB Services’ employees also work closely with other federal agencies such as the National Institute of Occupational Safety and Health to develop respiratory standards for CB equipment.

Advanced Planning and Initiatives

The Advanced Planning and Initiatives Directorate (AP&I) pulls together the mission of the center and leverages the capabilities that ECBC possesses. AP&I is also responsible for strategic planning for the entire center as well as technical outreach. AP&I ensures that ECBC’s technological breakthroughs and scientific expertise are transitioned to non-Department of Defense organizations, including other government agencies, industry, and U.S. allies throughout the world. AP&I also manages an extensive program of international scientific and technical collaboration in CB defense on behalf of the Joint Services.



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PM/PEO Matrix Support

More than 300 ECBC scientists, engineers, and support personnel employees are matrixed to various Army Program Managers (PMs) and Program Executive Offices (PEOs), such as the Program Manager for Chemical Demilitarization and Project Manager for Nuclear, Biological, and Chemical Defense Systems.

Infrastructure

ECBC has some of the most advanced chemical and biological research facilities in the United States as well as the latest in computer-aided design and engineering. These facilities and the experts who work in them keep the Center at the forefront of CB defense research. ECBC operates more than 25 facilities, including a Biosafety Level 3 laboratory and a Critical Reagent Repository, which stores and validates all immunological and DNA-based biodetection reagents for the Department of Defense. ECBC's facilities provide more than 1,500,000 square feet of space, approximately 57% of which is laboratory space.



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ECBC's Uniqueness

Capabilities

ECBC's background and expertise make it a popular source for technology solutions. ECBC technologies help protect critical sites across the country, and many businesses and government agencies approach the Center to request equipment testing, field training, and support from ECBC personnel. With this extensive "hands on" capability, ECBC is helping to protect both U.S. warfighters and our homeland. There are several examples of ECBC's extensive and diverse capabilities that include:

Homeland Defense: ECBC has trained over 28,000 first responders in 105 communities across the country under Congress' Domestic Preparedness Program (DP Program), enhancing nuclear, biological and chemical preparedness nationwide. ECBC continues to support the DP Program and offers several training courses for the first responder community.

Testing: Through formal agreements, ECBC tests technologies and equipment at its facilities for other government agencies and private industry. Although ECBC cannot endorse any commercially available products, we can provide valuable unbiased test data so that our customers can make informed decisions.

Sampling and Analysis: ECBC developed mobile or "flyaway" laboratories to support the international chemical weapons treaties. ECBC designs these laboratories today for a variety of organizations, including the Federal Bureau of Investigation. In addition, ECBC personnel can go on-site and collect samples and bring them back to ECBC laboratories for analysis.

Building Protection: ECBC provides technical advice and consultative services to a number of federal, state, and local agencies. ECBC personnel can assess the adequacy of existing building protection and the vulnerability of buildings.



ECBC is one of a few of the Army's and Department of Defense's total lifecycle research, development and engineering centers. ECBC possesses a full spectrum of capabilities ranging from basic and applied research, technology development, engineering, system acquisition to fielding and ultimately demilitarization.

Partnering with ECBC



**ECBC's commitment
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and businesses that are
making incredible
advances in technology.**

Many scientific advancements occur at federally-owned laboratories. These advancements are not only valuable to the government, but they are also valuable to private businesses doing similar research and development. ECBC is an active participant in the federal technology transfer program. We also make available our various research facilities to perform a variety of tests and evaluations on CB equipment.

Types of Agreements

There are several ways in which commercial industry and non-Department of Defense organizations can partner with ECBC. These include:

- Patent Licensing Agreements (PLA)
- Cooperative Research and Development Agreements (CRADA)
- Test Services Agreements (TSA)
- Memorandum of Agreement (MOA)
- Memorandum of Understanding (MOU)
- Support Agreement (Interagency Agreement)

For more information, visit our Web site
<http://www.sbccom.apgea.army.mil/RDA/orta/techtrans.htm>
or E-mail technical.outreach@sbccom.apgea.army.mil

Customers

ECBC's commitment to excellence has resulted in work with a variety of organizations and businesses that are making incredible advances in technology. ECBC counts among its customers nearly every federal agency including intelligence agencies, the Department of Justice, and the Department of State. ECBC also has a rapidly growing number of non-government partners, including businesses and universities.



**Protecting the warfighter
and U.S. Interests through
the application of science,
technology, and engineering
in chemical and biological
defense since 1917**

For more information about
Edgewood Chemical Biological Center
check out our Web site at:
<http://www.sbccom.army.mil>
or email to
technical.outreach@sbccom.apgea.army.mil



Since 1917 - a Tradition of Solutions